

Notice of Allowability

Application No.

10/605,027

Examiner

Joseph W. Drodge

Applicant(s)

NORTHROP ET AL.

Art Unit

1723

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the Amendment filed 02/18/05.
2. ☒ The allowed claim(s) is/are 1-40.
3. ☒ The drawings filed on 02 September 2003 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date 0405.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Daniel Lundeen on March 31, 2005.

The application has been amended as follows:

In line 1 of each of claims 6,7,38 and 39 "further comprising" has been replaced with -- wherein the flow area adjusting structure comprises -- .

In claim 25, in line 13 -- an adjustable portion of the -- has been inserted after "through".

In claim 26, in line 20 (end of the claim) -- ; and structure associated with the tray decks to adjust the flow area of the perforations -- has been inserted after "droplets".

The following is an examiner's statement of reasons for allowance: Independent method claim 10, and claims dependent therefrom are distinguished over the applied prior art of record for reasons of record pertaining to "passing the heavy phase through perforations in the decks...droplets of the heavy phase into respective cross-flow zones below the decks" (in such prior art, the heavy phase is the continuous phase and the light phase passes as droplets dispersed into the heavy phase).

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Claim 10 also distinguishes over newly cited Forte et al patent 4,247,521, for reasons of record pertaining to combination of limitations of "introducing a feed stream of the light phase... at a greater volumetric flow rate than the heavy phase flow rate" and "wherein the bottom riser sections have larger transverse cross-sectional areas than respective top riser sections". Forte et al, teach the recited riser structure, however introducing a light phase at a much smaller volumetric flow rate than the heavy phase flow rate.

Independent claim 25 now distinguishes over Forte et al considered to be the closest prior art in view of the limitation modified by examiners amendment "means for passing the heavy phase through an adjustable portion of the perforations in the decks of successive trays...".

Independent apparatus claim 26 and claims dependent therefrom similarly distinguish over Forte et al in view of limitation added by Examiners Amendment "and structure associated with the tray decks to adjust the flow area of the perforations".

The means plus function language of claim 25 "means for passing the heavy phase..." is now constituted as 112, 6th paragraph language pertaining to structure defined in paragraphs 61,62 and 65 of the Instant Specification concerning the adjustable blanking strips to block off portions of tray deck perforations or obvious equivalents. Other "means for ..." limitations of claim 25 are also considered to be 112, 6th paragraph limitations pertaining to inlet conduits and distributors at top and bottom of the extraction device and to layout of the tray decks relative to the risers, respectively.

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Support for the amended claim language for claims 25 and 26 is supported in paragraphs 61, 62 and 65 of the instant Specification

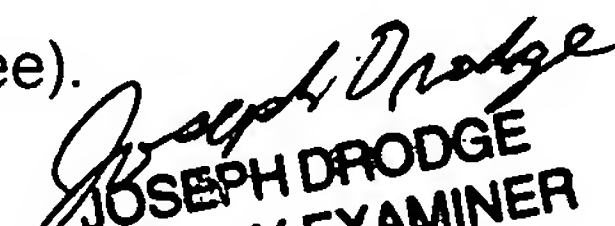
Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph Drodge at telephone number 571-272-1140. The examiner can normally be reached on Monday-Friday from 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda Walker, can be reached at 571-272-1151. The fax phone number for the examining group where this application is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either private PAIR or Public PAIR, and through Private PAIR only for unpublished applications. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have any questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JWD
April 1, 2005


JOSEPH DRODGE
PRIMARY EXAMINER